

REMARKS

Claims 1-18 are all the claims pending in the application. By this amendment, new claims 10-18 have been added. Claims 1 and 10 are independent claims.

Claim Objection

Claims 4-9 are objected to as being in improper multiple dependent form. Applicant has amended claims 2-8 to obviate the Examiner's objection.

Claim Rejection Under 35 U.S.C. § 112

Claims 1-9 are rejected under 35 U.S.C. § 112, second paragraph. The Examiner asserts that a structural relationship between several features is missing.

In response, Applicant has amended claim 1 to recite that the components of said digital control means are connected in order of said current command value calculating means, said current control means, and said PWM control means. Thus, Applicant respectfully requests the Examiner to withdraw the §112 rejection of claims 1-9.

Claim Rejection Under 35 U.S.C. § 103

Claims 1-3 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Prior Art FIG. 2 of the instant application in view of Hsin (US 2003/0076616) or Roach et al. (US 2005/0141422).

Applicant has amended independent claim 1 to recite two alternatives of original dependent claim 4, .i.e., that said n-th-order hold means is (1) a hold means using a n-th-order equation or (2) a hold means that allows an error to fit a n-th-order equation by least squares method so as to be minimum.

Applicant respectfully submits that claim is patentable at least because there is no combination of Prior Art FIG. 2, Hsin, or Roach that would disclose this feature. That is, the Examiner looks to Hsin or Roach as showing an n-th-order hold means. However, neither of these references discloses the specific n-th-order hold means of amended claim 1.

Thus, Applicant respectfully requests the Examiner to withdraw the rejection of claim 1.

In addition, Applicant respectfully requests the Examiner to withdraw the rejection of dependent claims 2 and 3 at least because of their dependency from claim 1.

New Claims

Applicant has also added new independent claim 10, which recites the two other alternatives of original dependent claim 4, .i.e., that the first-order hold means is: (1) is a first-order hold means in which $G(s) = T^{-1} \cdot (1+T \cdot s) \cdot [(1-\exp(-T \cdot s))/(T \cdot s)]^2$ (where, T is a sampling period) is used as a transfer function, or (2) a first-order hold means in which $u(t) = u(k) + [(t-k \cdot Ts)/Ts] \cdot (u(k+1)-u(k))$ (where, $k \cdot Ts < t < (k+1) \cdot Ts$ holds, and Ts is a sampling period) is used as a transfer function.

Applicant respectfully submits that new claim 10 is patentable at least because there is no combination of Prior Art FIG. 2, Hsin, or Roach that would disclose this feature.

Moreover, Applicant submits that new claims 11-18 are patentable at least because of their dependency from claim 10.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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